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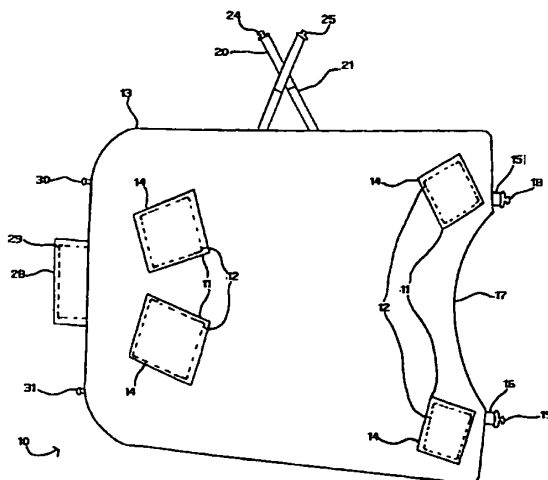
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **DEVICE FOR USE IN THE VEHICULAR TRANSPORT OF HORSES**



(57) Abstract: A device (10) for use in the vehicular transport of horses is applied to the body of a horse in use and comprises a plurality of protective discrete zones (11, 28) of a protective material in the form of perforated neoprene pads (12, 29), shown in dotted outline, positionable over those areas of the body of the horse, which are susceptible to injury caused by movement of the horse during transport, resulting from engagement of those areas with the walls of the transport vehicle. The device (10) is in the form of a cover (13) having said neoprene pads (12, 29) disposed thereon. The neoprene pads (12) are held in place within pockets (14) attached to the cover (13). The device confers protection on a horse such that the horse is less likely to sustain a new injury or aggravate a current or pre-existing injury during transport and, additionally, the general level of comfort for the horse in transport is enhanced.

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Description

Device for use in the vehicular transport of horses

Technical Field

The present invention relates to a device for use in the transport of
5 horses in a vehicle, such as a horsebox.

Background Art

The most common method of transport for horses on land is in a horsebox. For individuals involved in the horse breeding, horse racing or show jumping industries, a horsebox is the most viable method of
10 moving their horses from one location to another, for example, delivering a horse to a customer, bringing a horse to a race meeting or to a show jumping event, respectively.

One of the major drawbacks of this type of transport is the possibility that the horse may injure itself by moving within the horsebox
15 during transport. This occurs quite frequently due to vibration in the horsebox when moving, and the loss of balance experienced by a horse when the vehicle turns sharply. The amount of space within a horsebox is quite confined, and there are numerous bars and panels used to secure the horse and prevent it from falling, and in the case of a double
20 horsebox, to separate the horses.

The type of injuries sustained arise from the impact of the horse against the walls, panels and bars of a horsebox, and the frictional force

generated by the relevant body part of the horse rubbing against the relevant part of the vehicle. Although the injuries sustained are not always serious, the horse will most likely be quite distressed on arriving at its destination, and in the case of a horse due to compete in a race or
5 show jumping event, less likely to perform well.

Another common method of transport for horses is the horse transporter, in which a number of horses can be transported together. In this type of transporter the horses are housed in individual sections arranged in a herring-bone fashion along the longitudinal axis of the
10 transporter. This arrangement can lead to specific areas of the body of the horse, such as the shoulder and hip regions on opposite sides of the horse, respectively, impacting on the interior of the section more frequently than any other part of the body of the horse. This can result in injuries to those specific areas on the horse.

15 At present there are few effective options to protect a horse in transit. Current horse blankets or rugs provide very little impact protection, and similarly low levels of friction prevention.

The main aims of this invention are to prevent injury to a horse during vehicular transport, and to increase the comfort level for a horse
20 during such transport, which, in the case of a horse due to compete in a race or show jumping event, will leave the horse more likely to perform at peak levels.

Disclosure of Invention

Thus, the invention provides a device for use in the vehicular transport of horses, said device being applied to the body of a horse in use and comprising a plurality of protective discrete zones of a protective material positionable over those areas of the body of the horse, which are susceptible to injury caused by movement of the horse during transport, resulting from engagement of those areas with the walls of the transport vehicle.

Advantages resulting from use of the device according to the invention include:

- the possibility of a horse sustaining injury during transport being minimised;
- the possibility of a horse aggravating a current or pre-existing injury during transport being minimised;
- the comfort level experienced by a horse during transport being enhanced;
- the likelihood of a horse becoming stressed during transport being minimised and;
- the likelihood of a horse becoming less reluctant to enter a horsebox prior to transport being increased.

Preferably, the device is in the form of a cover having said zones of protective material disposed thereon.

The advantage of having the device in the form of such a cover is that the zones of protective material prevent susceptible parts of the body of the horse from engaging with any part of the vehicle, thereby lessening the likelihood of injury to the horse during transport.

Further, preferably, the cover is in the form of a blanket or rug.

One advantage of having the cover in the form of a blanket or rug is that a horse blanket or rug of conventional design can be adapted for use in a device in accordance with the invention.

A further advantage of having the cover in the form of a blanket or rug is that the cover can be manufactured in accordance with the climatic conditions of the region in which it will be used. In regions having a cold climate, the cover can be in the form of a thick or heat-retaining material. Conversely, in regions having a warm climate the cover can be in the form of a thin or heat-reflecting material.

In an alternative embodiment, the device according to the invention is in the form of an arrangement of straps having said zones of protective material disposed thereon.

The advantage of having the device in the form of an arrangement of straps is that the device can be adjusted *in situ*, to fit the body of the horse as closely as possible.

Preferably, the zones of protective material are releasably attachable to the device.

The zones of protective material can be attached to the device by a variety of means known *per se*, including a plurality of fastenings, or
5 strips of a plurality of hooks and eyes as sold under the trade mark VELCRO.

The advantage of having the zones of protective material releasably attachable to the device is that they can be positioned over certain parts of the body of one horse that are susceptible to injury and
10 over different body parts of another horse that are likewise susceptible to injury, as a result of the device not being supplied with the zones of protective material attached thereon in fixed locations. Where a previously injured horse needs to be transported this device allows a zone of protective material to be positioned over the area to prevent
15 further injury.

The parts of a particular horse which are susceptible to injury are also dependent on the particular vehicle being used. Thus, the appropriate protection can be provided for a particular situation.

Having a cover with detachable zones of protective material
20 allows the cover to be used as a conventional rug or blanket, when the zones of protective material are removed therefrom.

Preferably, the zones of protective material are in the form of pads.

The protective material can be formed of synthetic or natural fabrics or substances, or a combination thereof.

The advantage of having the zones of protective material in the form of pads is that they can absorb a portion of the force of impact
5 when part of the body of a horse engages with a surface of the vehicle, and prevent the force of the impact impinging directly and in full on said body part of the horse.

Alternatively, the zones of protective material can be in the form of fluid-filled pads.

10 The fluid will preferably be air or some other inert gas.

The pads can be provided with a sealable two-way valve to facilitate inflation and deflation of the pad to the required level.

The advantage of having the zones of protective material in the form of fluid-filled pads is that the fluid will absorb a large portion of the
15 force of any impact between the body part of a horse and the surface of the vehicle, lowering the likelihood of injury to the horse.

The zones of protective material can also be comprised of wadding of an impact absorbing material, such as sponge or polyurethane foam.

20 The advantage of having the zones of protective material comprised of wadding of an impact absorbing material is that the wadding will absorb a large portion of the force of any impact between

the body part of a horse and the surface of the vehicle, lowering the likelihood of injury to the horse.

The invention will be further illustrated by the following description of an embodiment thereof, given by way of example only
5 with reference to the accompanying drawings.

Brief Description of Drawings

Fig. 1 is a plan view, from below, of a device for use in the vehicular transport of horses according to the invention; and

Fig. 2 is a plan view, from above, of the device of Fig. 1.

10 Best Mode for Carrying out the Invention

Referring to Fig. 1 there is illustrated generally at 10, a device for use in the vehicular transport of horses viewed from below, said device 10 being applied to the body of a horse in use and comprising a plurality of protective discrete zones 11 of a protective material in the form of
15 perforated neoprene pads 12, shown in dotted outline, positionable over those areas of the body of the horse, which are susceptible to injury caused by movement of the horse during transport, resulting from engagement of those areas with the walls of the transport vehicle. The device 10 is in the form of a cover 13 of lightweight high-strength fabric
20 material having said neoprene pads 12 disposed thereon. The neoprene pads 12 are held in place within pockets 14 attached to the cover 13. Straps 15, 16 at front 17 of the cover 13 fasten beneath the neck of the horse in use. Fastening means 18, 19, located on the straps 15, 16

respectively, fasten the straps 15, 16 together. Straps 20, 21 fasten onto corresponding straps 22, 23 (Fig. 2) underneath the body of the horse. Fastening means 24, 25, located on the straps 20, 21 respectively, connect with fastening means 26, 27 (Fig. 2), respectively, the fastening
5 means 26, 27 being located on the straps 22, 23, respectively. A zone 28 of protective material in the form of a covered perforated neoprene pad 29, shown in dotted outline, is positioned to protect the rear end of the horse during transport. Attaching means 30, 31 fasten together in use to secure the cover 13 on the body of the horse.

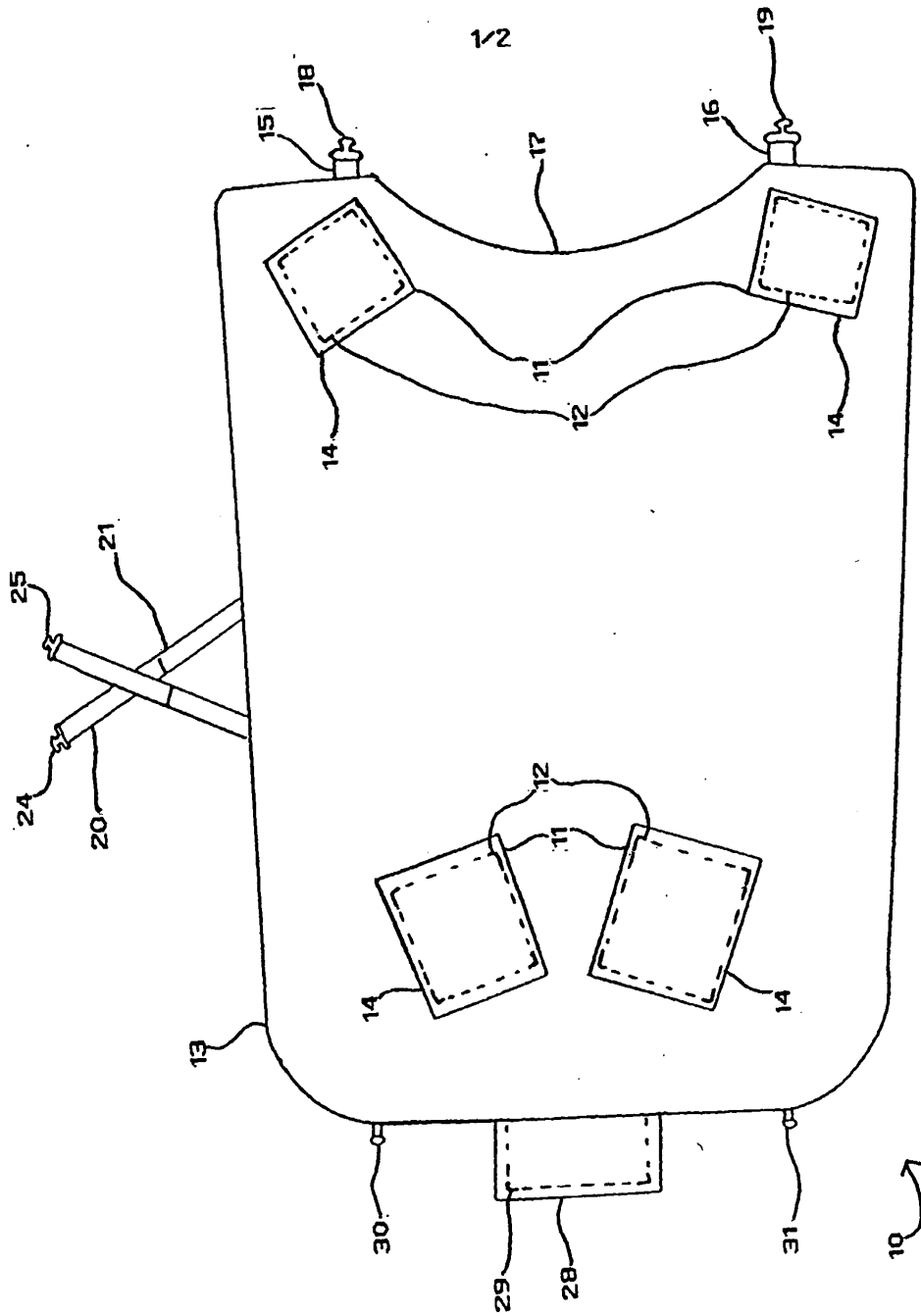
10 Referring to Fig. 2 there is illustrated generally at 10, the device for use in the vehicular transport of horses of Fig. 1, viewed from above. The pockets 14 (Fig. 1) which hold the neoprene pads 12 (Fig. 1) in place are attached to the cover 13 by means of corresponding zones 32 of stitching. Adjustable straps 33, 34, 35 are used to connect the zone 28 of
15 protective material to the cover 13 through the use of fastening means 36, 37, 38, respectively.

Claims: -

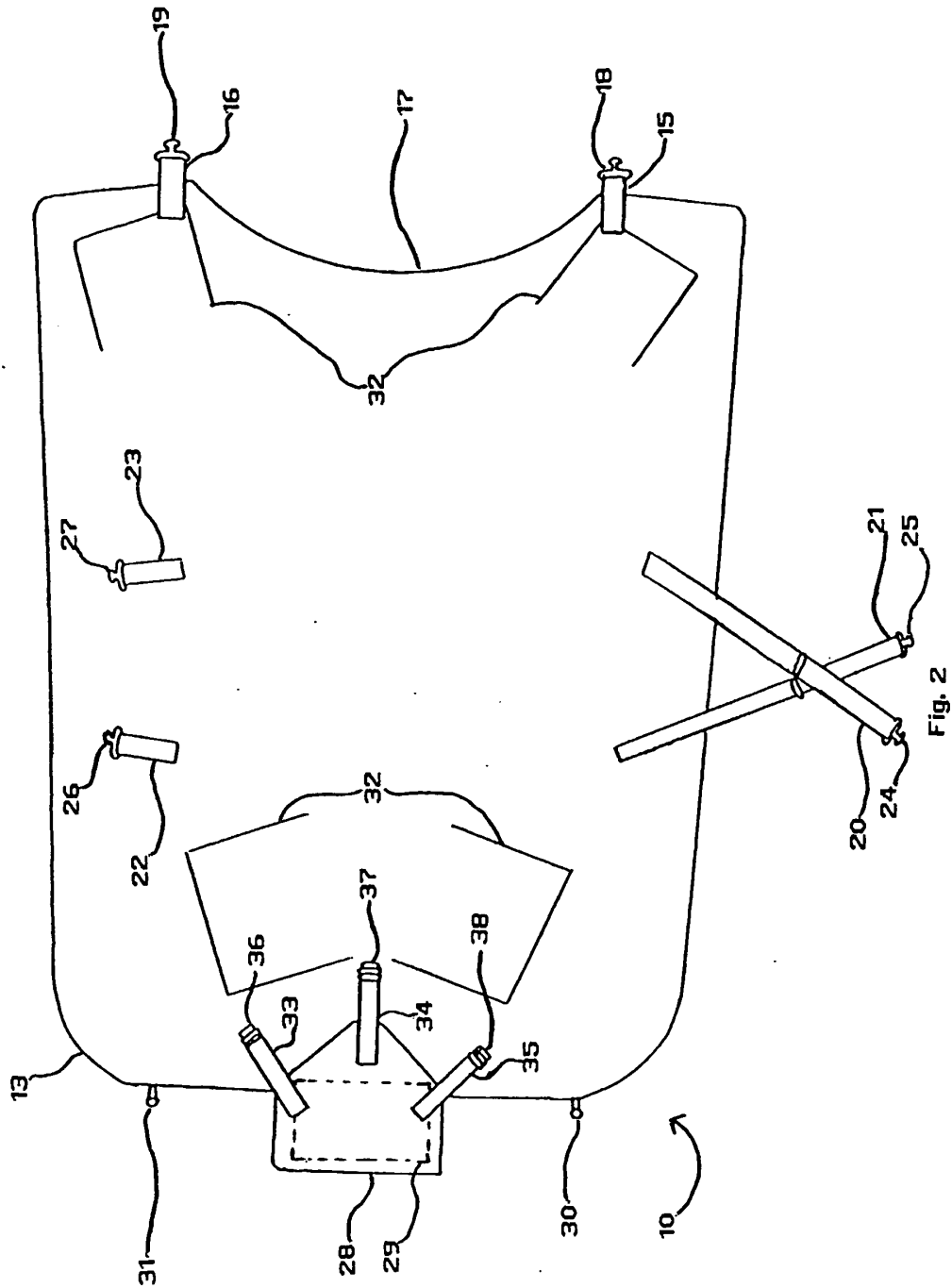
1. A device for use in the vehicular transport of horses, said device being applied to the body of a horse in use and comprising a plurality of protective discrete zones of a protective material positionable
5 over those areas of the body of the horse, which are susceptible to injury caused by movement of the horse during transport, resulting from engagement of those areas with the walls of the transport vehicle.
2. A device according to Claim 1, which is in the form of a cover having said zones of protective material disposed thereon.
- 10 3. A device according to Claim 1 or 2, wherein the cover is in the form of a blanket or rug.
4. A device according to Claim 1, which is in the form of an arrangement of straps having said zones of protective material disposed thereon.
- 15 5. A device according to any preceding claim, wherein the zones of protective material are releasably attachable thereto.
6. A device according to any preceding claim, wherein the zones of protective material are in the form of pads.
- 7 A device according to any one of Claims 1-5, wherein the
20 zones of protective material are in the form of fluid-filled pads.

8 A device according to any one of Claims 1-5, wherein the
zones of protective material are comprised of wadding of an impact
absorbing material.

9 A device for use in the vehicular transport of horses,
5 substantially as hereinbefore described with particular reference to and
as illustrated in the accompanying drawings.



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INTERNATIONAL SEARCH REPORT

International Application No
PCT/IE 02/00158

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A01K13/00 A01K1/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01K A61D B60P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 036 179 A (TURNER) 19 July 1977 (1977-07-19) column 1, line 29-57; figures 1-3	1,4,8,9
X	US 5 713 188 A (CHISHOLM) 3 February 1998 (1998-02-03) the whole document	1,2,4-6, 8,9
X	GB 1 572 222 A (TIBBOT) 30 July 1980 (1980-07-30) the whole document	1,2,4,6, 8,9
A	DE 200 21 260 U (UHR) 15 March 2001 (2001-03-15) abstract; figures 1-4	2,3,5,6
-/-		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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04/02/2003

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INTERNATIONAL SEARCH REPORT

International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 357 643 A (MOTT) 28 September 1931 (1931-09-28) the whole document -----	1,6,8,9

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International Application No
PCT/IE 02/00158

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US 5713188	A	03-02-1998	NONE	
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GB 357643	A	28-09-1931	NONE	

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